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Self-reported Internet victimization in Canada, 2009

by Samuel Perreault

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Corrections have been made to this product.

The publication has been reloaded on **June 5, 2013**.

Please take note of the following change(s):

Note to readers
Due to incorrect reporting by a police service of incidents of child pornography from 2008 to 2011, the data originally contained in this report have been suppressed and revised data were made available on July 25, 2013 with the release of 2012 crime statistics.

We regret any inconvenience this may have caused.

Statistics Canada
Juristat

Self-reported Internet victimization in Canada, 2009

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Symbols

. not available for any reference period
.. not available for a specific reference period
... not applicable
0 true zero or a value rounded to zero
0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p} preliminary
^{r} revised
x suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E} use with caution
F too unreliable to be published

Self-reported Internet victimization in Canada, 2009: Highlights

- According to results from the 2009 General Social Survey, about 7% of adult Internet users were cyber-bullied. This proportion was similar among males and females.
- Certain people were more at risk of being bullied, including younger adults (those aged 18 to 24 years) (17%), those who were single (15%) and those who accessed social networking sites (11%).
- About 4 in 10 (40% adult Internet users who had been bullied were targeted by a stranger. Men were slightly more likely than women to be cyber-bullied by a stranger, at 46% of male victims versus 34% of female victims.
- Slightly less than 1 in 10 adults (9%) reported cyber-bullying against at least one child in their household and 2% reported a case of child luring. Most adults (71%) indicated that the child who had been cyber-bullied was female.
- Relatively few incidents of cyber-bullying were reported to police. However, those that targeted children were more commonly reported than those that targeted adults (14% versus 7%).
- About 4% of Canadians who used the Internet in the previous 12 months reported being the victim of bank fraud on the Internet.
- Internet users living in census metropolitan areas were more likely than those living outside census metropolitan areas to report incidents of Internet bank fraud (4% compared to 2%).
- The higher the personal income, the greater the risk of bank fraud on the Internet. Internet users with an annual income in excess of $60,000 were three times more likely to be the victims of Internet bank fraud than those earning less than $20,000 per year.
- About 14% of Internet users who made online purchases in the 12 months preceding the survey encountered problems. These types of incidents most often involved not receiving goods or services that had already been paid for, receiving goods or services that were not as described on the website or having extra funds taken from their account.
- Two-thirds (65%) of Internet users reported that their computer had been previously infected by a virus, spyware or adware. Another 4 in 10 Internet users (39%) indicated that they had experienced at least one phishing attempt.
- One in 6 (16%) Internet users indicated that they had previously come across content that promoted hate or violence. Most of the time, this content targeted ethnic or religious groups.

Self-reported Internet victimization in Canada, 2009

by Samuel Perreault

Most Canadians use the Internet regularly (Middleton 2010). According to results from the 2010 Canadian Internet Use Survey, 8 out of 10 Canadian households had access to the Internet (Statistics Canada 2011).[1] However, the advent of new information technologies is also creating new opportunities for crime and new risks of victimization (RCMP 2011; Public Safety 2011). In recent years, governments and institutions, as well as users, have identified the need to address the risk of victimization on the Internet (Kowalski 2002). However, to date, it remains difficult to measure the nature and extent of the issue. While police records provide some information, self-reported data show that only a small proportion of victimizations are reported to authorities (Perreault and Brennan 2010).

In 2009, the General Social Survey (GSS) on Victimization was conducted on a sample of Canadians aged 15 years and older living in the provinces. For the first time, the GSS collected information from Canadians about their perceptions and experiences of victimization on the Internet, with a particular focus on cyber-bullying, Internet bank fraud and problems encountered with making online purchases (see Text box 1).

Drawing on the GSS data, this *Juristat* article[2] presents information on Internet victimization as self-reported by Canadians. In particular, it examines the socio-demographic and economic characteristics (such as age, level of education and income status) and Internet use characteristics of those who have been victimized. This article also examines security concerns of Canadian Internet users as well as hate content found on the Internet.

Text box 1
Defining victimization on the Internet

The following definitions are derived from questions that were asked to GSS respondents in 2009. It is important to note that data obtained from these questions are based upon the perceptions of individuals and should not be compared to police-reported data that may measure similar concepts.

Cyber-bullying: Had ever previously received threatening or aggressive messages; been the target of hate comments spread through e-mails, instant messages or postings on Internet sites; or threatening e-mails sent using the victim's identity.

Child luring: Had ever previously been lured or sexually solicited online, for example through e-mail, instant messages or chat rooms. Although most instances of child luring could be considered as such according to its *Criminal Code* definition, some might not, depending on age of the victim or offender and other circumstances.

Internet bank fraud: During the 12 months preceding the survey, credit or debit cards (or information from them) were used from an Internet source to make purchases or withdraw money without authorization from the cardholder.

Problems with online purchases: During the 12 months preceding the survey, online products or services paid in advance were never delivered; the products or services received were not those described on the website; or additional amounts were deducted from the account without authorization. Problems with online purchases could have resulted from an error or fraudulent means.

Phishing: Had ever previously received fraudulent e-mail from someone posing as a trustworthy and legitimate organization requesting personal information. Other types of phishing are not included in this report.

Internet user: For the purpose of this report, Internet users refer to those who reported having used the Internet in the 12 months preceding the survey.

Self-reported victimization of cyber-bullying of adults

Threatening or aggressive e-mails most common type of cyber-bullying

The GSS questioned respondents aged 15 and over on their personal experiences with cyber-bullying. In addition, respondents aged 18 and over with children aged 8 to 17 living in their household were asked about the experiences these children had with cyber-bullying. To avoid overlap, cyber-bullying of those aged 15 to 17 is analysed in the section entitled "Cyber-bullying and luring of children and youth".

Results from the 2009 GSS indicate that 7% of Internet users aged 18 and over[3] self-reported ever having been the victim of cyber-bullying (Table 1). The most common form of bullying involved receiving threatening or aggressive e-mails or instant messages—reported by three-quarters (73%) of cyber-bullying victims. The second most common form of bullying was being the target of hateful comments, experienced by over half (55%) of victims. Less than 1 in 10 victims (8%) had had his or her identity assumed by someone sending threatening e-mails.

Users of social networking sites and chat services twice as likely to be victims of cyber-bullying

Some Internet use characteristics were found to increase the risk of being cyber-bullied.[4] Most notable was the use of chat sites or social networking sites[5]—those who used chat sites or social networking sites were almost three times more likely than non-users to be cyber-bullied (14% and 11% compared to 4% and 3%, respectively) (Table 3).

Young adults, singles, homosexuals and persons with an activity limitation at greater risk of being cyber-bullied

Some socio-demographic characteristics such as being young, single, homosexual or bisexual, or having an activity limitation were also found to increase the risk of being the victim of cyber-bullying. For example, young adults between 18 and 24 years of age were about three times more likely than those aged 25 and over to report having been the victim of cyber-bullying, at 17% versus 5% (Table 4).

Similarly, single people were over three times more likely than married individuals to have been the victim of cyber-bullying. Approximately 15% of Internet users who were single had been bullied versus 4% of married (including common-law) individuals. Separated or divorced Internet users were also proportionally more likely than those who were married or living common-law to report being bullied online (9% versus 4%) (Table 4).

Individuals who self-reported being homosexual or bisexual were also more likely to report having been cyber-bullied, at two to three times their heterosexual counterparts. Among Internet users, almost one-quarter of bisexuals (24%) and one-fifth of homosexuals (18%) were cyber-bullied, compared to 7% of heterosexuals (Table 5).

Lastly, people with an activity limitation (i.e. limited in the amount or kind of activity because of a long-term physical or mental condition or health problem) were more likely than those with no limitation to report having been cyber-bullied (Table 5). This was particularly true among Internet users aged 18 to 34. Specifically, more than 1 in 5 (22%) of those with an activity limitation in this age group were cyber-bullied, compared to 10% of those with no limitation.

Victims of violent crime more likely to be cyber-bullied

The GSS also collects information on victimizations involving violent crimes (namely, sexual assaults, robberies and assaults) that occurred in the 12 months preceding the survey. Adult users of the Internet who reported having been a victim of at least one violent crime were more likely than those who had not been victimized to also report having been the victim of cyber-bullying (20% versus 6%) (Table 4). In particular, victims of sexual assault or robbery and those who reported having been the victim of two or more violent incidents were most likely to have been cyber-bullied; about one-third of them self-reported having been cyber-bullied.

Although GSS data do not indicate if the incidents are related, other research suggests that the same victims are often bullied in both the virtual and physical world (Flores 2005).

Trusting family relationships protect from cyber-bullying

While some characteristics increase the risk of being the victim of cyber-bullying, other characteristics appear to decrease that risk. For example, Internet users who indicated that they can trust people in their family a lot,[6] were less likely to be cyber-bullied than those who indicated that they could more or less trust them (6% compared to 13%) (Table 4). Other research shows that family support and positive relationships help prevent children from being bullied or being a bully (Wienke Totura 2009; Flores 2005).

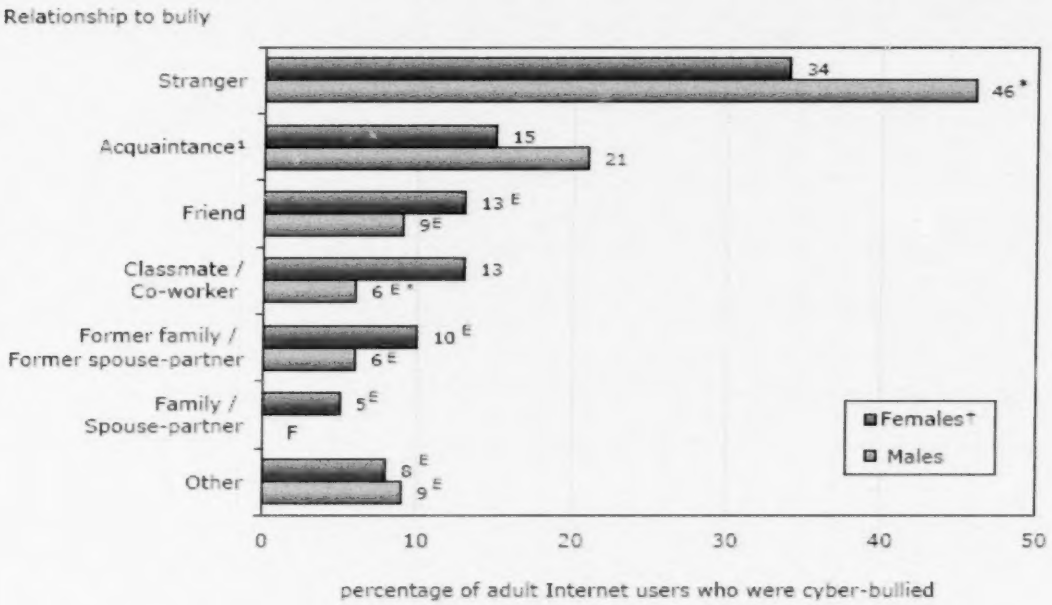
Francophones[7] and visible minorities were also less likely than their counterparts to report having been bullied on the Internet. About 5% of francophones who used the Internet indicated having been bullied on the Internet, versus 8% of anglophones[8] (Table 5). As for visible minorities, while the proportion of those who had been bullied was similar to that for non-visible minorities (7%), when other factors such as age, marital status, and the use of social networking and chat sites were taken into account, members of visible minorities who used the Internet were 30% less likely to have been cyber-bullied (Table 9).

Men more likely than women to be bullied by a stranger

Overall, men and women were equally likely to be cyber-bullied, at 7% each (Table 4). However, the relationship to the bully differed slightly depending on the sex of the victim. Men were more likely than women to be bullied by a stranger (46% versus 34%). While one-third of women were bullied by a stranger, women were more likely than men to be bullied by a classmate or co-worker (13% compared to 6% for men) (Chart 1).

People aged 25 years and over who were cyber-bullied were also more likely to be bullied by a stranger than those between 15 and 24 years of age (49% and 23%, respectively). In this younger group, most (64%) were bullied by a friend, a classmate or an acquaintance.

Chart 1
Adult Internet users who self-reported cyber-bullying, by relationship to the bully, 2009



† reference category
E use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)
1. Includes neighbour, acquaintance, Internet friend and known by sight only.
Note: Excludes data for Yukon, the Northwest Territories and Nunavut.
Source: Statistics Canada, General Social Survey, 2009.

Measures taken to terminate cyber-bullying seldom involve the police

Relatively few instances of cyber-bullying were reported to the police in 2010, at less than 1 in 10 such victimizations (7%). However, given that cyber-bullying is not always criminal in nature and, thus, may not warrant reporting to police, other measures may be more appropriate. Victims of cyber-bullying were more likely to block messages from the sender (60%), to leave the Internet site (51%) or to report the situation to their Internet or e-mail service provider (21%).[9]

Women were more likely than men to take steps to terminate bullying. Thus, about 7 in 10 (71%) female victims blocked messages from the offending sender, and nearly one-quarter (23%) reported the situation to their Internet or e-mail service provider. For men, these proportions were 49% and 18%, respectively.

Text box 2
Police-reported cyber-crime

Some police services in Canada collect information on cyber-crimes. These data reflect criminal incidents that come to the attention of police services and have been substantiated through investigation to involve the Internet as the object of the crime or a computer as the tool used to commit the offence. In 2009, a sub-set of police services, covering 51% of the Canadian population, provided data on cyber-crime through the Uniform Crime Reporting (UCR) Survey.

According to the UCR Survey, the sub-set of police services reported 3,334 cyber-crimes in 2009. Among these crimes, fraud was the most common offence, accounting for more than one-half (55%) of all cyber-crimes. Incidents of intimidation[1] represented another one-quarter (23%) of police-reported incidents, while child luring via the Internet accounted for 7%.[2]

The UCR Survey collects some information on people accused of crimes and, for violent crimes such as intimidation, information is also collected on victims. These data show that most victims of police-reported intimidation on the Internet were women or young girls, at about 7 in 10 victims (67%). In cases of child luring, about nine in ten (90%) victims were girls.

Information from police on solved incidents of cyber-crime indicates that most accused persons in 2009 were adult males. Males were accused in 72% of incidents of cyber-intimidation and virtually all (98%) incidents of child luring. The median age of those accused of cyber-intimidation was 21 whereas those accused of child luring tended to be a little older, at 33 years of age. While most victims of cyber-intimidation knew the accused person (80%), most victims of child luring were lured by a stranger (69%).

1. For the purposes of this analysis, intimidation includes incidents of extortion, intimidation of a non-justice system participant, criminal harassment, indecent/harassing telephone calls and uttering threats. Information on victims is collected only for violent offences.
2. Proportions are based upon responses from a sub-set of police services covering 51% of the population. For additional information pertaining to child luring via the Internet as reported by all police services, see "Child luring through the Internet" (Loughlin and Taylor-Butts 2009).
Source: Statistics Canada, Canadian Centre for Justice Statistics, Incident-based Uniform Crime Reporting Survey (UCR 2.2).

Cyber-bullying and luring of children and youth

As part of the 2009 GSS, adult respondents were asked whether any of the children (aged 8 to 17) living in their household had been the victim of cyber-bullying, that is, received threatening e-mails or instant messages; been the target of hateful comments spread through e-mails, instant messages or postings on Internet sites and/or having had threatening e-mails sent using the identity of the child. Respondents were also asked if one of the children had ever been lured or sexually solicited online.

If at least one child had been bullied or lured, respondents were then asked to provide additional information about the most recent incident and the steps taken to deal with it. Because respondents were asked to provide information on the most recent incident of cyber-bullying or luring, it is not possible to examine these types of victimizations separately when looking at detailed information. It is important to note that the information presented in this section reflects only those cases of which adult respondents were aware.

About 1 in 10 adults living in a household with children reported a child victim of cyber-bullying

Slightly less than 1 in 10 (9%) adults living in a household that includes a child[10] knew of a case of cyber-bullying against at least one of the children in their household, a proportion that was consistent across the country. About 15% of these adults reported that more than one child in the household had been cyber-bullied. Another 2% reported that at least one of their children has ever been lured or sexually solicited online.

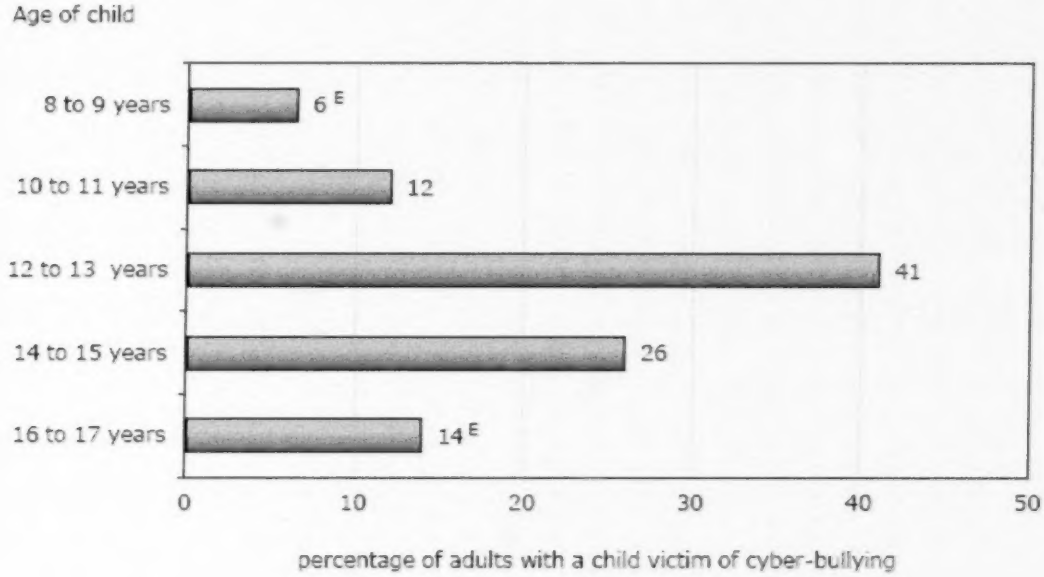
The most common form of cyber-bullying against children was being the target of threatening or aggressive e-mails or instant messages, reported by 74% of adults who knew of a case of cyber-bullying against a child in their household. This was followed by hate comments received by e-mail or instant messaging or posted on a website (72%), and having someone use the identity of the child to send threatening messages (16%).[11]

Girls more likely than boys to be bullied on the Internet

Results from the GSS show that nearly three-quarters (71%) of adults who knew of a case of cyber-bullying or luring against a child reported that the victim was female. This proportion was the same regardless of how the bullying or luring was discovered (e.g. whether the child or someone else, such as a school official, informed the respondent).

Four in ten (41%) adults with a child victim in their household said that this child was aged 12 or 13 when the most recent incident occurred (Chart 2). This finding held true whether the adult reported a male or female victim.

Chart 2
Canadian adults with a child victim of cyber-bullying in their household, by age of child during the most recent incident, 2009

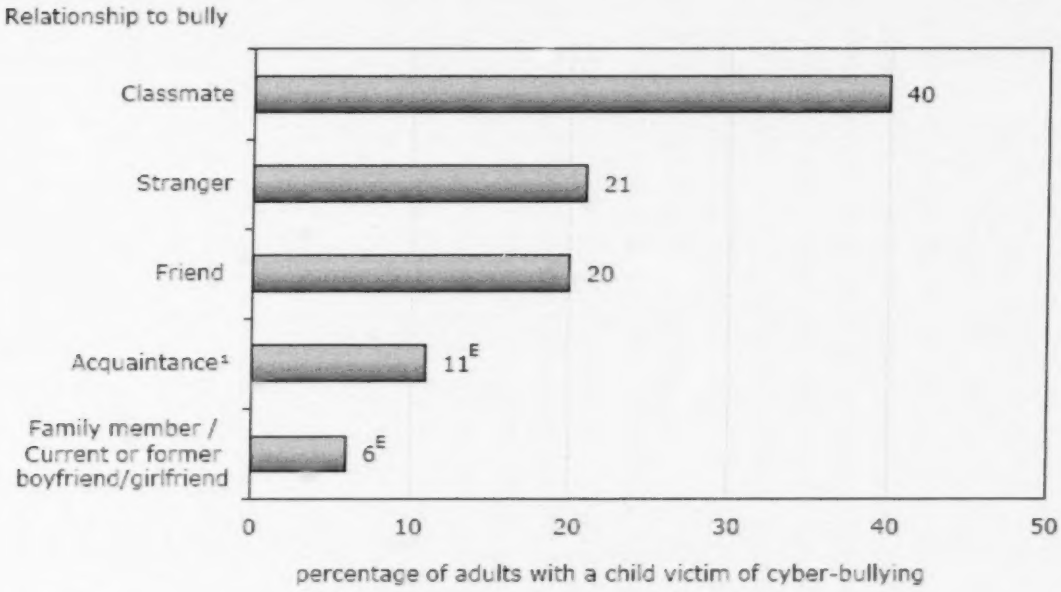


E use with caution
Note: Data are based upon answers from respondents living with at least one child aged 8 to 17 years. Excludes data for Yukon, the Northwest Territories and Nunavut.
Source: Statistics Canada, General Social Survey, 2009.

Most victims bullied by someone they know

Most adults reported that the children were bullied by someone they knew, usually a classmate (40%), a friend (20%) or acquaintance (11%) rather than by a stranger (21%) (Chart 3). The only exception was among cases of child luring, where 6 in 10 (60%) adults said the child was lured by a stranger.[12]

Chart 3
Adults with a child victim of cyber-bullying in their household, by relationship to the bully during the most recent incident, 2009



[E] use with caution
1. Includes neighbour, acquaintance, teacher, Internet friend and known by sight only.
Note: Data are based upon answers from respondents living with at least one child aged 8 to 17 years. Excludes data for Yukon, the Northwest Territories and Nunavut.
Source: Statistics Canada, General Social Survey, 2009.

Incidents of cyber-bullying against children are seldom reported to police

As with cyber-bullying incidents against adults, those involving children are not usually reported to police. According to 2009 GSS data, 14% of cases of cyber-bullying or luring of children known to the adults were reported to police. Slightly less than 1 in 10 (9%) said they reported the incident to the Internet or e-mail service provider or the website. However, since the GSS only identifies cyber-bullying incidents that adults were aware of, the actual proportion of incidents that are brought to the attention of authorities is likely even lower.

Of those that did take measures to terminate the cyber-bullying or luring, the most common step was to block messages from the sender, reported by nearly two-thirds (64%) of adults with a bullied or lured child in the household. In nearly half of the cases (47%), the child's access to the Internet or the site in question was blocked. Moreover, about one-third (34%) of adults reported they met with school officials to ask help in resolving the situation.

Moreover, many adults living with children aged 8 to 17 said there were restrictions on Internet use in their household. In order to protect children against cyber-bullying, six in 10 adults (59%) reported that there were restrictions on the Internet sites their children could access, 58% of whom made use of parental control software for these purposes.

Text box 3
Comparing self-reported and adult-reported cyber-bullying of adolescents aged 15 to 17

The 2009 GSS collected information on cyber-bullying specific to youth aged 15 to 17 in two different ways. Respondents aged 15 to 17 years were asked directly about their experiences with cyber-bullying, just as were respondents aged 18 and over. Adult respondents with children under 18 in their household were also asked questions on the experiences of cyber-bullying of these children.[1]

In general, the rates of cyber-bullying of 15 to 17 years-olds that were reported by adults were similar to those provided directly by adolescents aged 15 to 17, suggesting that many cyber-bullying incidents are coming to the attention of the adults in the household. More specifically, 19% of adolescents in this age group self-reported having been a victim of cyber-bullying, while approximately 12% of adults with an adolescent aged 15 to 17 in the household reported that at least one of these adolescents had been cyber-bullied, with 15% of these adults reporting more than one cyber-bullied adolescent in the household. Adult-reported responses and self-reported responses were also very similar with regards to the sex of the victims and the relationship to the bully.

When asked about the most recent bullying incident, about 6 in 10 (62%) adults said that it took place when the adolescent was under age 15.

1. In this section, numbers for adults include only those whose children were aged 15 to 17 years and had no children aged 8 to 14.

Self-reported Internet bank fraud victimization

British Columbia and Ontario report highest proportions of victims of Internet bank fraud

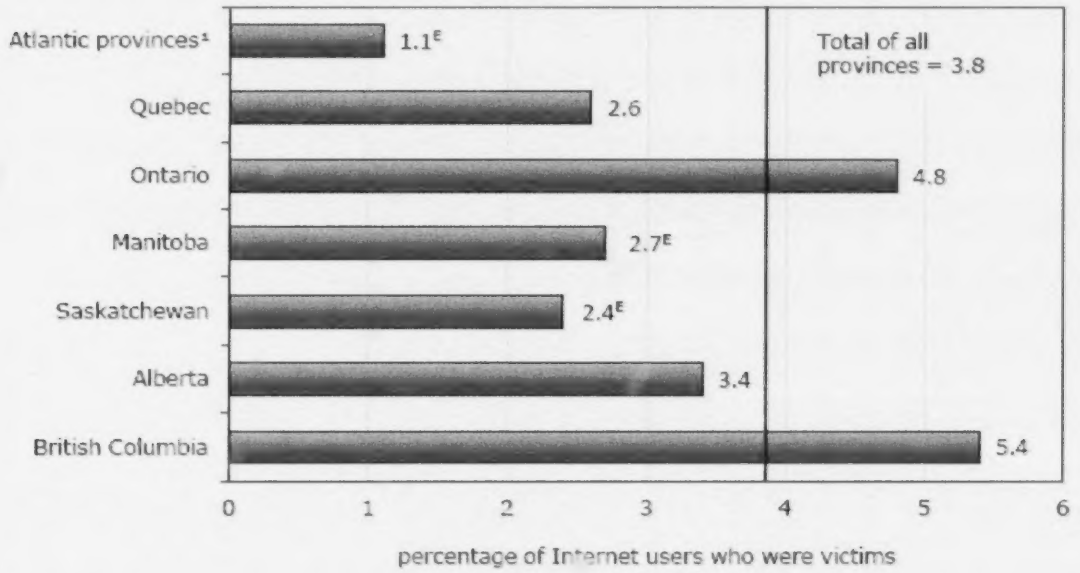
According to results from the 2009 GSS, about two-thirds (64%) of Internet users indicated that they were very or somewhat concerned about conducting banking on the Internet, even though over two-thirds (68%) reported having conducted online banking operations at least occasionally.

Overall, 4% of Internet users reported having been the victim of bank fraud during the 12 months preceding the survey. Among the provinces, British Columbia (5%) and Ontario (5%) reported the highest proportions of victims of bank fraud (Chart 4 and Table 1).

Internet bank fraud highest in Canada's large metropolitan areas

Victims of bank fraud were more likely to live in census metropolitan areas than elsewhere in the country. Approximately 4% of those in census metropolitan areas who used the Internet during the past year were victimized, versus 2% of residents in non-census metropolitan areas (Table 2). The highest proportions of victims were recorded in Toronto and Vancouver, at 7% in each city.

Chart 4
Internet users who self-reported victimizations of Internet bank fraud, by province, 2009



[E] use with caution
1. Due to small numbers, Atlantic provinces were grouped. See Table 1 for data for individual provinces.
Note: Percentages are based upon Canadians who used the Internet in the 12 months preceding the survey. Excludes data for Yukon, the Northwest Territories and Nunavut.
Source: Statistics Canada, General Social Survey, 2009.

Frequent Internet use, high income and high education associated with Internet bank fraud

As with cyber-bullying, some socio-economic and Internet use characteristics were found to increase the risk of being the victim of Internet bank fraud. This is the case for individuals who frequently use the Internet for online banking operations. Specifically, 5% of those who reported conducting online banking at least once a week were victims of bank fraud, more than double the proportion of those who rarely or never did their banking online[13] (2%) (Table 3).

The risk of Internet bank fraud among Internet users also tends to rise with increasing personal income and level of education. Thus, among Internet users, individuals whose personal income exceeded $60,000 were about three times more likely than those whose income was less than $20,000 to be victims of bank fraud—6% versus 2% (Table 4).

A similar pattern was observed for level of education. Internet users with a university degree were about five times more likely to report bank fraud than those without a high school diploma—5% versus 1% (Table 4). While individuals with higher incomes and levels of education tend to conduct more online banking than their counterparts, the differences remained when frequency of Internet use was taken into account (Table 8).

Francophones less likely to be victims of Internet bank fraud

While some characteristics increase the risk of being the victim of bank fraud, other characteristics decrease that risk. For example, Canadians who indicated that they spoke French at home reported less Internet bank fraud than those who spoke a different language. More specifically, compared to anglophones the risk of being a victim of bank fraud was about 25% lower for francophones (Table 8).

This difference may be partially attributed to the fact that many Internet fraud attempts are made in English. For example, 43% of anglophones reported having received fraudulent e-mails from individuals who presented themselves as representing trustworthy and legitimate organizations requesting personal information. This compares to 25% of francophones (Table 6).

Problems with online purchases

Online sales problems reported most often in Alberta

About 14% of Internet users who had made online purchases in the 12 months preceding the survey experienced some kind of problem, whether the problem was due to error or the result of fraudulent means, with a least one of these transactions. In general, the proportion of online consumers who reported problems with online purchases in the 12 months preceding the survey varied little across the country (Table 1). Alberta reported the highest proportion, at nearly 1 in 5 (18%), while Newfoundland and Labrador reported the lowest (9%) (Table 1).

Making transactions only with well-known organizations decreases risk of problems with online purchases

Dealing only with well-known organizations seems to offer a certain level of protection against potential problems with online purchases. Among those who reported doing so, 13% reported problems with online purchases, less than the proportion of those who said they had not limited their transactions to only well-known organizations (20%) (Table 3).

Immigrants and visible minorities at higher risk when making online purchases

Compared to their fellow Canadians, a higher proportion of immigrants and members of visible minority groups reported problems with online purchases. In 2009, 21% of members of a visible minority and 18% of immigrants who had made online purchases reported such problems. In comparison, this was the case for 13% of individuals who were not immigrants or members of a visible minority group (Table 5).

These differences might be partially explained by the fact that some types of fraud specifically target immigrants, such as those related to the process of obtaining citizenship or other documents related to immigration.

General Internet security issues

Four in 10 Internet users have experienced a phishing attempt

Phishing attempts, or receiving fraudulent e-mails that represent the sender as a reputable and legitimate organization requesting personal information, is one of the most prevalent security risks encountered by Canadian Internet users. Specifically, nearly 4 in 10 Internet users (39%) reported experiencing at least one phishing attempt. This proportion, as well as those for other types of security issues, may be underestimated as not all Internet users are necessarily aware of phishing attempts.

Some Internet users are more vulnerable to phishing attempts than others. For example, in 2009, male Internet users (45%) reported incidents of phishing more often than female Internet users (33%). Similarly, Internet users aged 35 to 44 years (44%), who possess a university degree (54%), and whose personal income exceeds $100,000 (58%) and who live in a census metropolitan area (43%) were more likely than others to be subject to phishing (Table 6).

Similar to Internet bank fraud, francophone Internet users (25%) were proportionally less likely to be the targets of phishing attempts than anglophones (43%) or allophones[14] (36%). This might indicate that many phishing attempts are made in English (Table 6).

Exposure to phishing is also more common among those who make online purchases. Nearly two-thirds (66%) of individuals who reported making online purchases at least once a week reported being the target of at least one phishing attempt. By way of comparison, this was true for less than one-quarter (24%) of Internet users who rarely or never made online purchases (Table 7).

Virus, spyware or adware infection most common Internet security issue

Having a computer infected by a virus, spyware or adware was the most common Internet security issue, reported by nearly two-thirds of Internet users (65%). Users who run antivirus programs (67%) were more likely to report having been infected by a virus than those who do not (45%) (Table 7). However, GSS respondents were not asked if they had their antivirus program when they were infected. While some users may have obtained an antivirus program after having been infected, those who already had an antivirus program may have been more likely to be aware that their computer was infected.

Other types of security issues were reported less often by Internet users. For example, 9% of respondents stated that their e-mail account or computer files had been hacked into and 4% of Internet users had their personal information made public.

Although many Internet users encountered some kind of security issue, most of them were taking measures of protection. The vast majority of Internet users possess an antivirus program (91%), deal only with well-known organizations (84%) and regularly delete e-mails from unknown sources. Close to three-quarters (73%) of Internet users also reported regularly clearing the browser's cache and deleting cookies. However, a lower proportion (33%) of Internet users said they regularly change their passwords.

Promotion of hate on the Internet

One in 6 Internet users has come across content that promotes hate or violence

As found with victimization in general, some population groups are more or less likely to be victims of discrimination or hate crime because of their ethnic origin, their religion, or their sexual orientation (Dauvergne and Brennan 2011). The same situation is observed on the Internet, as some population groups are targeted by sites that promote hate or violence against specific groups.

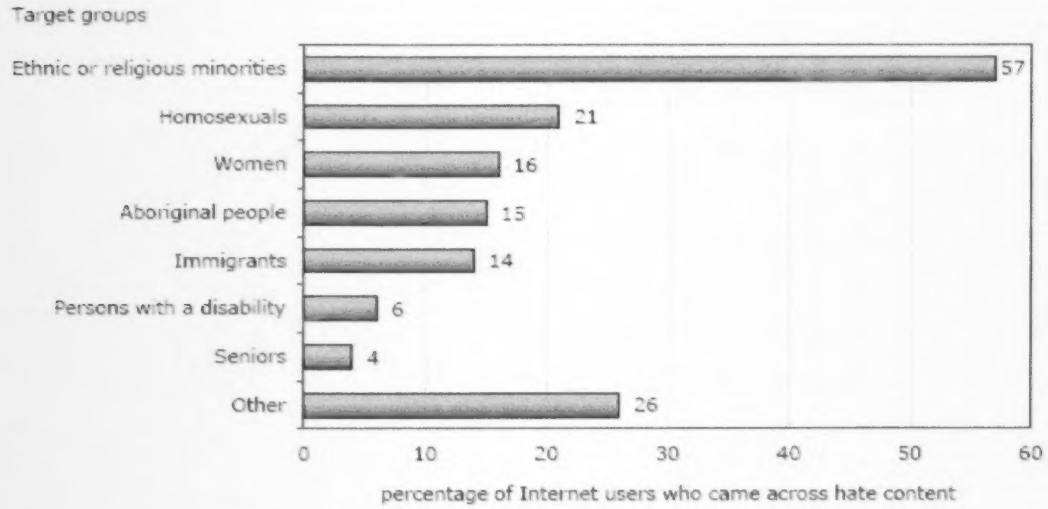
In 2009, nearly 1 in 6 Internet users (16%) reported ever having come across content that promoted hatred or violence toward an identifiable group, whether they accidentally encountered that content or they were searching for it. However, not everyone was equally likely to find such material. For example, nearly one in three youth or young adults between 15 and 24 years of age (30%) reported having found hate content, more than double the proportion of those 25 and over (12%) (Table 6).

Ethnic or religious groups most common targets of hate content on the Internet reported by Internet users

Respondents to the 2009 GSS who came across hate content on the Internet were asked to provide information on which groups they felt had been targeted. These results show that ethnic or religious groups were the most commonly reported targets of hate content on the Internet, reported by over half (57%)[15] of Internet users who came across hate content (Chart 5).

These results parallel data on perceived incidents of hate crime in general. According to the 2009 GSS, close to two-thirds (65%) of self-reported hate crimes were believed to be motivated by race or ethnicity and another 16% were believed to be motivated by religion (Dauvergne and Brennan 2011). Other groups reported by Internet users to be targets of hate content they encountered on the Internet included homosexuals (reported by 21% of Internet users who came across hate content), women (16%), Aboriginal people (15%) and immigrants (14%) (Chart 5).

Chart 5
Internet users who came across hate content on the Internet, by target group of the hate content, 2009



Note: Percentages are based upon Internet users who came across hate content in the 12 months preceding the survey. Categories are not mutually exclusive. Respondents who came across content promoting hate or violence toward a specific group could report more than one target group, therefore totals do not add up to 100%. Excludes data for Yukon, the Northwest Territories and Nunavut.
Source: Statistics Canada, General Social Survey, 2009.

Summary

In 2009, information on self-reported Internet victimization pertaining to cyber-bullying, Internet bank fraud and problems with making purchases online was collected for the first time by the General Social Survey on Victimization. The results showed that approximately 7% of adult Internet users had been a victim of cyber-bullying, which was usually committed by a stranger or an acquaintance. Moreover, approximately 1 in 10 adults (9%) with a child aged 8 to 17 living in the household reported that at least one of these children had been the victim of cyber-bullying and 2% reported a case of child luring.

GSS data also showed that 4% of Internet users were victims of bank fraud. Among Canadians who made online purchases during the 12 months preceding the survey, 14% experienced some kind of problem with at least one of these sales. Those who transacted only with well-known organizations reported experiencing fewer problems with online purchases than those who did not take such precautions.

Methodology of the multivariate analysis

Several factors may be associated with an increased risk of victimization on the Internet. Most of these factors are, however, interrelated. For example, youth are more likely than adults to use social networking sites (such as Facebook, MySpace, etc.). In order to measure which of these factors has the greatest impact or, rather, to assess the extent to which each factor increases or decreases the risk of victimization on the Internet, a multivariate analysis was performed. Consequently, a logistic regression model is used to evaluate the individual contribution of each factor to victimization. Thus, the impact of each factor is measured while other factors are held constant. This impact is expressed as the odds ratio.

The odds ratio captures the contribution to victimization risk relative to a reference group. An odds ratio that is statistically significant and greater than 1 indicates that the characteristic in question increases the risk of victimization. An odds ratio that is statistically significant and less than 1 indicates that the characteristic in question reduces the risk of victimization. The odds ratio also expresses the degree of increased risk. For example, in Model 1 (Table 8), the frequency of online banking transactions was found to be the greatest risk factor: Internet users who make daily online transactions were approximately 2.25 times more at risk than those who rarely or never do so. Conversely, the risk of victimization to francophones was approximately 25% lower (odds ratio of 0.72).

Methodology for the General Social Survey on Victimization

In 2009, Statistics Canada conducted the victimization cycle of the General Social Survey (GSS) for the fifth time. Previous cycles were conducted in 1988, 1993, 1999 and 2004. The objectives of the survey are to provide estimates of Canadians' personal experiences of eight offence types, examine risk factors associated with victimization, examine reporting rates to police, measure the nature and extent of spousal violence, measure fear of crime and examine public perceptions of crime and the criminal justice system. For the first time, the 2009 GSS also collected information on Canadians' experiences with Internet victimization, namely bank fraud, cyber-bullying and problems with making online purchases.

Sampling

The target population included all persons 15 years and older in the 10 Canadian provinces, excluding full-time residents of institutions. The survey was also conducted in the three Canadian territories using a different sampling design and its results will be available in a separate report to be released in 2011. Households were selected by a telephone sampling method called Random Digit Dialling (RDD). Households without telephones or with only cellular phone service were excluded. These two groups combined represented approximately 9% of the target population (Residential Telephone Service Survey, (RTSS), December 2008). Therefore, the coverage for 2009 was 91%.

Once a household was contacted, an individual 15 years or older was randomly selected to respond to the survey. The sample in 2009 was approximately 19,500 households, a smaller sample than in 2004 (24,000).

Data collection

Data collection took place from February to November 2009 inclusively. The sample was evenly distributed over the 10 months to represent seasonal variation in the information. A standard questionnaire was administered by telephone using computer-assisted telephone interviewing (CATI). A typical interview lasted 45 minutes. Prior to collection, all GSS questions went through qualitative and pilot testing.

Response rates

Of the 31,510 households that were selected for the GSS Cycle 23 sample, 19,422 usable responses were obtained. This represents a response rate of 61.6%. Types of non-response included respondents who refused to participate, could not be reached, or could not speak English or French. Respondents in the sample were weighted so that their responses represent the non-institutionalized Canadian population aged 15 years or over, in the ten provinces. Each person who responded to the 2009 GSS represented roughly 1,400 people in the Canadian population aged 15 years and over.

Data limitations

As with any household survey, there are some data limitations. The results are based on a sample and are therefore subject to sampling error. Somewhat different results might have been obtained if the entire population had been surveyed. This *Juristat* article uses the coefficient of variation (CV) as a measure of the sampling error. Any estimate that has a high CV (over 33.3%) has not been published because the estimate is too unreliable. In these cases, the symbol 'F' is used in place of an estimate in the figures and data tables. An estimate that has a CV between 16.6 and 33.3 should be used with caution and the symbol 'E' is referenced with the estimate. Where descriptive statistics and cross-tabular analysis were used, statistically significant differences were determined using 95% confidence intervals.

Using the 2009 GSS sample design and sample size, an estimate of a given proportion of the total population, expressed as a percentage is expected to be within 0.95 percentage points of the true proportion 19 times out of 20.

Notes

1. The Canadian Internet Use Survey (CIUS) and the General Social Survey (GSS) use different methodologies and concepts to measure Internet use. The GSS was primarily designed to measure victimization on Internet. Therefore, the following numbers are based on GSS respondents who stated they have used Internet in the 12 months preceding the survey.

2. This report was funded by Justice Canada's Policy Centre for Victims Issues.

3. Respondents were asked if they have ever been victim of cyber-bullying. As such, the most recent cyber-bullying incident could have happened before the respondent was 18 years old.

4. The risk and security elements presented in this article (aside from geographic factors) were tested in a multivariate analysis (logistic regression) to account for factors (such as frequency of Internet use) that may have contributed to the risk of victimization. Only statistically significant factors are presented here. For more details about the results of the multivariate analysis, see Methodology of the multivariate analysis.

5. Examples of social networking sites include MySpace and Facebook. Examples of online chat services include Yahoo Chat, PalTalk and ICQ.

6. Answers were based upon the question: "How much do you trust people in your family?" using a 5-point scale with 1 being "Cannot be trusted at all" and 5 being "Can be trusted a lot". For the purposes of this analysis, answers 2 through 4 were combined into the category "Can be more or less trusted".

7. Refers to those whose language spoken most often at home is French.

8. Refers to those whose language spoken most often at home is English.

9. Respondents could report more than one way that they tried to stop the bullying.

10. Refers to all respondents including those who stated their children had not used the Internet (4% of adult respondents living with children aged 8 to 17 years).

11. Categories are not mutually exclusive, therefore totals will not add up to 100%.

12. Based upon incidents in which only one child in the household was the victim of bullying or luring.

13. Internet bank fraud can occur even if victims do not use the Internet for banking as these types of incidents can result from identity or credit/debit card theft, as long as an Internet source was used to commit the fraud.

14. Refers to those whose language most often spoken at home is neither English nor French.

15. Internet users had the option of identifying more than one target group. As such, percentages will not total 100%.

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Table 1
Self-reported victimizations of cyber-bullying of adults, Internet bank fraud and problems with Internet purchases, by province, 2009

	Cyber-bullying of adults[1]		Internet bank fraud		Problems with Internet purchases	
Province	**number '000's**	**percentage[2]**	**number '000's**	**percentage[2]**	**number '000's**	**percentage[3]**
Newfoundland and Labrador	15[E]	5[E]*	F	F	15[E]	9[E]*
Prince Edward Island	6[E]	7[E]	F	F	F	F
Nova Scotia	46	8	7[E]	1[E]*	38	12
New Brunswick	25[E]	6[E]	F	F	31	14
Quebec	259	5*	132	3*	281	12*
Ontario	621	7	428	5*	695	14
Manitoba	45[E]	6[E]	21[E]	3[E]	47	12
Saskatchewan	46	8	15[E]	2[E]*	49	15
Alberta	180	8	86	3	272	18*
British Columbia	253	8	175	5*	279	15
Total†	**1,494**	**7**	**872**	**4**	**1,709**	**14**

† reference category
[E] use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)
1. Includes respondents aged 18 years and over. Respondents were asked if they had ever been the victim of cyber-bullying. As such, there is no time period for cyber-bullying.
2. Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey.
3. Proportions are based upon Internet users who reported having made online purchases during the 12 months preceding the survey.
Note: The total excludes data for Yukon, the Northwest Territories and Nunavut. "Don't know" and "Not stated" categories are included in totals but not shown in the table.
Source: Statistics Canada, General Social Survey, 2009

Table 2
Self-reported victimizations of cyber-bullying of adults, Internet bank fraud and problems with Internet purchases, by census metropolitan area, 2009

	Cyber-bullying of adults[1]		Internet bank fraud		Problems with Internet purchases	
Census metropolitan area[2]	number '000's	percentage[3]	number '000's	percentage[3]	number '000's	percentage[4]
St. John's	8[E]	6[E]	F	F	8[E]	10[E]*
Saint John	4[E]	5[E]	F	F	6[E]	14[E]
Halifax	22[E]	8[E]	F	F	21[E]	13[E]
Québec	29[E]	6[E]	F	F	26[E]	10[E]
Montréal	136	6*	72[E]	3[E]*	161	13
Ottawa–Gatineau	53[E]	7[E]	32[E]	4[E]	63[E]	11[E]
Toronto	263	7	265	7*	347	15
Hamilton	31[E]	7[E]	29[E]	6[E]	39[E]	15[E]
Kitchener–Cambridge–Waterloo	35[E]	11[E]	F	F	F	F
London	F	F	F	F	38[E]	19[E]
Winnipeg	25[E]	5[E]	14[E]	3[E]*	31[E]	12[E]
Regina	12[E]	9[E]	F	F	12[E]	16[E]
Saskatoon	12[E]	8[E]	F	F	16[E]	18[E]
Edmonton	62[E]	8[E]	37[E]	5[E]	104	21*
Calgary	79[E]	10[E]	20[E]	2[E]*	103	19
Vancouver	143	9	125	7*	168	16
Victoria	10[E]	4[E]*	F	F	26[E]	14[E]
All 33 CMAs†	**1,115**	**7**	**713**	**4**	**1,309**	**15**
Non-CMA	**379**	**6***	**160**	**2***	**400**	**12***
Total	**1,494**	**7**	**872**	**4**	**1,709**	**14***

† reference category
[E] use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)
1. Includes respondents aged 18 years and over. Respondents were asked if they had ever been the victim of cyber-bullying. As such, there is no time period for cyber-bullying.
2. A census metropolitan area (CMA) consists of one or more neighbouring municipalities situated around an urban core. A CMA must have a total population of at least 100,000, of which 50,000 or more live in the core. To be included in the CMA, other adjacent municipalities must have a high degree of integration with the urban core, as measured by commuting flows derived from census data.
3. Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey.
4. Proportions are based upon Internet users who reported having made online purchases during the 12 months preceding the survey.
Note: CMAs for which data are too unreliable to be published are not shown in the table but are included in the calculation for all 33 CMAs. The total excludes data for Yukon, the Northwest Territories and Nunavut. "Don't know" and "Not stated" categories are included in totals but not shown in the table.
Source: Statistics Canada, General Social Survey, 2009.

Table 3
Self-reported victimizations of cyber-bullying of adults, Internet bank fraud and problems with Internet purchases, by selected characteristics of Internet use, 2009

Characteristics of Internet use	Cyber-bullying of adults[1]		Internet bank fraud		Problems with Internet purchases	
	number '000's	percentage[2]	number '000's	percentage[2]	number '000's	percentage[3]
Frequency of online banking transactions						
At least once a week†	745	7	513	5	1,080	15
At least once a month	280	8	131	4*	320	14
Occasionally	102[E]	8	57[E]	4[E]	87[E]	13[E]
Rarely or never	336	6*	156	2*	195	9*
Frequency of online reservations						
At least once a week†	55[E]	7[E]	65[E]	8[E]	142	19
At least once a month	374	7	309	6	630	14*
Occasionally	503	7	258	3*	620	14*
Rarely or never	533	7	226	3*	294	12*
Frequency of online purchases						
At least once a week†	110	11	74[E]	7[E]	235	22
At least once a month	481	8	297	5	886	15*
Occasionally	468	7*	254	4*	463	11*
Rarely or never	406	5*	232	3*	102[E]	11*
Use of social networking sites						
Yes†	1,144	11	471	4	1,154	17
No	350	3*	402	4	554	11*
Use of chat sites						
Yes†	886	14	233	3	775	18
No	609	4*	639	4	933	12*
Use of antivirus software						
Yes†	1,361	7	808	4	1,597	14
No	104[E]	7[E]	61[E]	4[E]	105[E]	13
Transacting only with well-known organizations						
Yes†	1,221	7	783	4	1,422	13
No	265	9*	87[E]	3[E]*	281	20*
Regularly changing passwords						
Yes†	596	8	327	4	673	15
No	897	6*	545	4	1,032	13
Regularly deleting e-mail from unknown sources						
Yes†	1,335	7	771	4	1,587	14
No	122[E]	7[E]	49[E]	3[E]*	95	12
Regularly clearing the browser's cache and deleting cookies						
Yes†	1,222	8	686	4	1,430	15
No	268	5*	181	3	265	11*

† reference category
[E] use with caution
* significantly different from reference category ($p < 0.05$)
1. Includes respondents aged 18 years and over. Respondents were asked if they had ever been the victim of cyber-bullying. As such, there is no time period for cyber-bullying.
2. Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey.
3. Proportions are based upon Internet users who reported having made online purchases during the 12 months preceding the survey.
Note: Excludes data for Yukon, the Northwest Territories and Nunavut. "Don't know" and "Not stated" categories are included in totals but not shown in the table.
Source: Statistics Canada, General Social Survey, 2009.

Table 4
Self-reported victimizations of cyber-bullying of adults, Internet bank fraud and problems with Internet purchases, by socio-demographic and economic characteristics of Internet users, 2009

Socio-demographic and economic characteristics	Cyber-bullying of adults[1]		Internet bank fraud		Problems with Internet purchases	
	number '000's	percentage[2]	number '000's	percentage[2]	number '000's	percentage[3]
Sex						
Female†	751	7	402	4	719	13
Male	744	7	470	4	990	15*
Age group						
15 to 24 years[4]†	527	17	115[E]	3[E]	395	19
25 to 34 years	388	9*	180	4	440	15*
35 to 44 years	228	5*	213	5*	388	14*
45 to 54 years	221	5*	186	4*	275	11*
55 to 64 years	88	3*	133	4*	149	10*
65 years and over	42[E]	2[E]*	45[E]	3[E]	62	10*
Marital status						
Married or common-law†	582	4	606	4	1,032	13
Single	776	15*	192	3*	569	17*
Separated or divorced	121	9*	61[E]	4	101	16
Widowed	15[E]	4[E]	F	F	6[E]	4[E]*
Highest level of education						
University†	465	7	332	5	630	13
College or trade school	352	5*	281	4	436	13
Some college or university	360	10*	144	4	363	18*
High school diploma	229	8	79[E]	3[E]*	160	13
High school not completed	87[E]	6	34[E]	1[E]*	115	14
Annual personal income						
Less than $20,000†	512	11	133[E]	2[E]	485	18
$20,000 to $39,999	342	7*	155	3	297	12*
$40,000 to $59,999	242	6*	163	4*	287	12*
$60,000 to $99,999	197	5*	224	6*	330	13*
$100,000 or more	78[E]	5[E]*	103	6*	166	14*

† reference category
[E] use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)
1. Includes respondents aged 18 years and over. Respondents were asked if they had ever been the victim of cyber-bullying. As such, there is no time period for cyber-bullying.
2. Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey.
3. Proportions are based upon Internet users who reported having made online purchases during the 12 months preceding the survey.
4. For cyber-bullying of adults, this category refers to persons aged 18 to 24.

Table 4 (continued)
Self-reported victimizations of cyber-bullying of adults, Internet bank fraud and problems with Internet purchases, by socio-demographic and economic characteristics of Internet users, 2009

Socio-demographic and economic characteristics	Cyber-bullying of adults[1]		Internet bank fraud		Problems with Internet purchases	
	number '000's	percentage[2]	number '000's	percentage[2]	number '000's	percentage[3]
Main activity						
Employed†	935	6	646	4	1,100	13
Student	306	15*	63[E]	2[E]*	329	20*
Looking for work	49[E]	10[E]	F	F	39[E]	16[E]
Other[5]	199	5*	153	3*	239	12
Drug consumption						
Never†	1,116	6	707	4	1,379	13
Regular or occasional	372	13*	153[E]	5[E]	324	18*
Violent victimizations in the 12 months preceding the survey[6]						
No violent victimization†	1,202	6	789	4	1,484	13
At least one violent victimization	293	20*	84[E]	5[E]	225	23*
One violent victimization	175	16*	66[E]	5[E]	166	22*
Two or more violent victimizations	118[E]	31*	F	F	59[E]	27[E]*
Trust in family members[7]						
They can be trusted a lot†	1,253	6	771	4	1,528	14
They can be more or less trusted	113[E]	13*	43[E]	4[E]	96	23*
Cannot be trusted at all	126	11*	56[E]	5[E]	83[E]	13[E]

† reference category
[E] use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)
1. Includes respondents aged 18 years and over. Respondents were asked if they had ever been the victim of cyber-bullying. As such, there is no time period for cyber-bullying.
2. Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey.
3. Proportions are based upon Internet users who reported having made online purchases during the 12 months preceding the survey.
4. For cyber-bullying of adults, this category refers to persons aged 18 to 24.
5. Includes, for example, respondents who reported being retired, caring for children, household work, maternity/paternity leave, long-term illness, volunteering or "other" as their main activity.
6. Violent victimization includes sexual assault, robbery and assault. For more details on violent victimization, see Perreault and Brennan 2010.
7. Answers were based upon the question: "How much do you trust people in your family?" using a 5-point scale with 1 being "Cannot be trusted at all" and 5 being "Can be trusted a lot". For the purposes of this analysis, answers 2 through 4 were combined into the category "Can be more or less trusted".
Note: Excludes data for Yukon, the Northwest Territories and Nunavut. "Don't know" and "Not stated" categories are included in totals but not shown in the table.
Source: Statistics Canada, General Social Survey, 2009.

Table 5
Self-reported victimizations of cyber-bullying of adults, Internet bank fraud and problems with Internet purchases, by selected socio-demographic and cultural characteristics of Internet users, 2009

	Cyber-bullying of adults[1]		Internet bank fraud		Problems with Internet purchases	
Socio-demographic and cultural characteristics	**number '000's**	**percentage[2]**	**number '000's**	**percentage[2]**	**number '000's**	**percentage[3]**
Immigrant						
No†	1,225	7	667	4	1,267	13
Yes	264	6	204	4	438	18*
Visible minority						
No†	1,289	7	715	4	1,375	13
Yes	198	7	144	4	326	21*
Aboriginal identity						
Non-Aboriginal people†	1,425	7	851	4	1,667	14
Aboriginal people	63	10[E]	F	F	40	14[E]
Language spoken at home						
English†	1,159	8	662	4	1,305	14
French	217	5*	115	3*	216	11*
Other	118[E]	7[E]	96[E]	5[E]	188	21*
Sexual orientation[4]						
Heterosexual†	1,369	7	831	4	1,586	14
Homosexual	45[E]	18[E]*	F	F	31[E]	19[E]
Bisexual	56[E]	24[E]*	F	F	F	F
Activity limitation						
No limitation†	916	6	612	4	1,195	13
Limitation	578	10*	259	4	511	17*

† reference category
[E] use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)
1. Includes respondents aged 18 years and over. Respondents were asked if they had ever been the victim of cyber-bullying. As such, there is no time period for cyber-bullying.
2. Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey.
3. Proportions are based upon Internet users who reported having made online purchases during the 12 months preceding the survey.
4. The question pertaining to sexual orientation was only asked to respondents 18 years of age and older.
Note: Excludes data for Yukon, the Northwest Territories and Nunavut. "Don't know" and "Not stated" categories are included in totals but not shown in the table.
Source: Statistics Canada, General Social Survey, 2009.

Table 6
Internet users who self-reported phishing attempts, virus infections and hate content, by selected socio-demographic and cultural characteristics, 2009

Socio-demographic and cultural characteristics	Phishing attempts		Virus infections		Hate content	
	number '000's	percentage	number '000's	percentage	number '000's	percentage
Sex						
Female†	3,743	33	6,811	60	1,411	12
Male	5,151	45*	8,035	70*	2,142	19*
Age group						
15 to 24 years†	1,560	35	3,058	69	1,310	30
25 to 34 years	1,895	43*	3,131	70	838	19*
35 to 44 years	1,981	44*	3,024	68	564	13*
45 to 54 years	1,809	39*	3,063	67	457	10*
55 to 64 years	1,142	37	1,813	59*	290	9*
65 years and over	507	29*	756	43*	94	5*
Location						
Census metropolitan area (CMA)[1]†	6,834	43	10,759	67	2,750	17
Non-CMA	2,061	30*	4,087	60*	803	12*
Highest level of education						
University†	3,597	54	4,675	70	1,170	18
College or trade school	2,406	37*	4,220	65*	764	12*
Some college or university	1,479	41*	2,462	68	737	20
High school diploma	782	25*	1,761	57*	364	12*
High school not completed	602	21*	1,665	59*	512	18
Annual personal income						
Less than $20,000†	2,051	33	3,990	65	1,402	23
$20,000 to $39,999	1,687	34	3,050	62*	625	13*
$40,000 to $59,999	1,548	38*	2,565	64	510	13*
$60,000 to $99,999	1,844	50*	2,616	71*	570	15*
$100,000 or more	924	58*	1,207	76*	236	15*
Immigrant						
No†	6,924	38	11,843	65	2,875	16
Yes	1,955	42*	2,970	64	671	14
Visible minority						
No†	7,472	39	12,576	65	2,997	15
Yes	1,334	42	2,154	67	540	17

† reference category
[E] use with caution
* significantly different from reference category ($p < 0.05$)
1. A census metropolitan area (CMA) consists of one or more neighbouring municipalities situated around an urban core. A CMA must have a total population of at least 100,000, of which 50,000 or more live in the core. To be included in the CMA, other adjacent municipalities must have a high degree of integration with the urban core, as measured by commuting flows derived from census data.

Table 6 (continued)
Internet users who self-reported phishing attempts, virus infections and hate content, by selected socio-demographic and cultural characteristics, 2009

Socio-demographic and cultural characteristics	Phishing attempts		Virus infections		Hate content	
	number '000's	percentage	number '000's	percentage	number '000's	percentage
Aboriginal identity						
Non-Aboriginal people†	8,617	39	14,370	65	3,452	16
Aboriginal people	224	33*	400	59*	93	14
Language spoken at home						
English†	7,087	43	10,713	65	3,023	18
French	1,116	25*	2,941	65	280	6*
Other	691	36*	1,193	63	250	13*
Sexual orientation[2]						
Heterosexual†	8,261	40	13,391	65	2,984	15
Homosexual	119	49	156	64	64[E]	26[E]*
Bisexual	112	48	178	76*	51[E]	22[E]
Total	**8,894**	**39**	**14,846**	**65**	**3,553**	**16**

† reference category
[E] use with caution
* significantly different from reference category ($p < 0.05$)
2. The question pertaining to sexual orientation was only asked to respondents 18 years of age and older.
Note: Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey. Excludes data for Yukon, the Northwest Territories and Nunavut. "Don't know" and "Not stated" categories are included in totals but not shown in the table.
Source: Statistics Canada, General Social Survey, 2009.

Table 7
Internet users who self-reported phishing attempts, virus infections and hate content, by selected characteristics on Internet use, 2009

	Phishing attempts		Virus infections		Hate content	
Characteristics of Internet use	**number '000's**	**percentage**	**number '000's**	**percentage**	**number '000's**	**percentage**
Frequency of online banking transactions						
At least once a week†	5,032	50	7,054	69	1,795	18
At least once a month	1,576	43*	2,573	70	672	18
Occasionally	500	32*	1,032	65*	287	18
Rarely or never	1,692	25*	3,905	58*	769	12*
Frequency of online reservations						
At least once a week†	531	64	654	78	160	19
At least once a month	2,977	54*	3,905	71*	1,064	19
Occasionally	3,116	42*	5,024	68*	1,203	16
Rarely or never	2,194	26*	5,002	59*	1,102	13*
Frequency of online purchases						
At least once a week†	705	66	787	74	286	27
At least once a month	3,322	56*	4,314	73	1,332	23
Occasionally	2,811	41*	4,651	68*	1,010	15*
Rarely or never	1,974	24*	4,828	58*	897	11*
Use of social networking sites						
Yes†	5,206	45	8,101	71	2,556	22
No	3,687	32*	6,739	59*	996	9*
Use of chat sites						
Yes†	3,395	48	5,406	76	1,904	27
No	5,494	35*	9,433	60*	1,647	11*
Use of antivirus software						
Yes†	8,310	40	14,015	67	3,271	16
No	530	35*	677	45*	249	17
Transacting only with well-known organizations						
Yes†	7,768	41	12,608	66	2,891	15
No	1,073	32*	2,034	61*	645	19*
Regularly changing passwords						
Yes†	3,374	44	5,149	67	1,444	19
No	5,485	37*	9,612	64*	2,094	14*
Regularly deleting e-mail from unknown sources						
Yes†	8,331	43	12,981	68	3,201	17
No	551	29*	1,137	60*	287	15
Regularly clearing the browser's cache and deleting cookies						
Yes†	7,240	43	11,610	69	2,891	17
No	1,565	29*	2,992	55*	639	12*
Total	**8,894**	**39**	**14,846**	**65**	**3,553**	**16**

† reference category
* significantly different from reference category ($p < 0.05$)
Note: Proportions are based upon all Canadians who used the Internet at least once during the 12 months preceding the survey. Excludes data for Yukon, the Northwest Territories and Nunavut. "Don't know" and "Not stated" categories are included in totals but not shown in the table.
Source: Statistics Canada, 2009 General Social Survey.

Table 8
Model 1 Logistic regression: risk of online bank fraud, by selected characteristics of Internet users, 2009

Characteristics of Internet users	Bank fraud odds ratio
Personal income	
$100,000 or more	1.94***
$60,000 to $99,999	2.02***
$40,000 to $59,999	1.43*
Less than $40,000	reference
Place of residence	
Census metropolitan area	1.65***
Non-census metropolitan area	reference
Highest level of education	
At least some trade school, college or university	1.73**
High school diploma or less	reference
Language spoken at home	
Non-official language	1.31
French	0.73*
English	reference
Frequency of online banking transactions	
Daily	2.29***
At least once a week	1.53*
At least once a month	1.24
Occasionally	1.4
Rarely or never	reference

* significantly different from reference category ($p < 0.05$)
** significantly different from reference category ($p < 0.01$)
*** significantly different from reference category ($p < 0.001$)
Note: Based upon all Canadians aged 18 and over who used the Internet at least once during the 12 months preceding the survey. Excludes data for Yukon, the Northwest Territories and Nunavut. Non-significant variables were excluded from the model. These variables include: sex, age, marital status, main activity, visible minority status, immigration status, Aboriginal identity, drug use, frequency of online reservations and purchases, methods of protection (antivirus, changing password), use of social network and chat sites.
Source: Statistics Canada, General Social Survey, 2009.

Table 9
Model 2 Logistic regression: risk of cyber-bullying of adults, by selected characteristics of Internet users, 2009

Characteristics of Internet users	Cyber-bullying odds ratio
Age group	
18 to 24 years	1.43*
25 years or over	reference
Marital status	
Single	2.16***
Separated or divorced	1.74***
Married, common-law or widowed	reference
Member of a visible minority	
Visible minority	0.69*
Non-visible minority	reference
Language spoken at home	
Non-official language	1.14
French	0.61***
English	reference
Sexual orientation	
Homosexual or bisexual	1.86**
Heterosexual	reference
Activity limitation	
Activity limitation	1.79***
No activity limitation	reference
Use of social networking sites	
Yes	2.13***
No	reference
Use of chat sites	
Yes	2.38***
No	reference
Trust in family members[1]	
They can be trusted a lot	0.62***
Cannot be trusted at all or can be more or less trusted	reference
Violent victimizations during the 12 months preceding the survey	
Two or more	3.22***
One	1.63**
None	reference

* significantly different from reference category ($p < 0.05$)
** significantly different from reference category ($p < 0.01$)
*** significantly different from reference category ($p < 0.001$)
1. Answers were based upon the question: "How much do you trust people in your family?" using a 5-point scale with 1 being "Cannot be trusted at all" and 5 being "Can be trusted a lot". For the purposes of this analysis, answers 1 through 4 were combined into the category "Cannot be trusted at all or can be more or less trusted".
Note: Based upon all Canadians aged 18 and over who used the Internet at least once during the 12 months preceding the survey. Excludes data for Yukon, the Northwest Territories and Nunavut. Non-significant variables were excluded from the model. These variables include: sex, personal income, main activity, education, place of residence, immigration status, Aboriginal identity, drug use, number of close friends living in the neighbourhood, frequency of Internet use, methods of protection (antivirus, changing password).
Source: Statistics Canada, General Social Survey, 2009.